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Notice of Allowability	Application No.	Applicant(s)	
	09/781,833	ELDRIDGE ET AL.	
	Examiner	Art Unit	
	Anita K Alanko	1765	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 3/22/04 RCE.
2. ☒ The allowed claim(s) is/are 76-94.
3. ☒ The drawings filed on 12 February 2001 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☒ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☒ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|---|--|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input checked="" type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date <u>0504</u> . |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____ | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____ |

Anita K. Alanko
Anita K Alanko
Primary Examiner
Art Unit: 1765

EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

The application has been amended as follows:

In the specification:

On page 37, line 27, delete "Fig.23C" and insert - - Fig. 23A - -

In the claims:

Cancel claims 69-75.

This application is in condition for allowance except for the presence of claims 69-75 drawn to a method non-elected without traverse (see below). Accordingly, claims 69-75 have been cancelled.

Amendment to Drawings

The following changes to the drawings have been approved by the examiner and agreed upon by applicant: Change the second instance of Fig. 16C to read "Fig. 16D". Label Figures 19A-19C as Fig. 23A, Fig. 23B, and Fig.23C. In Figure 23A, change "19B" to "23B" and in Figure 23B, change "19C" to "23C" (these changes were noted in the originally filed drawings).

In order to avoid abandonment of the application, applicant must make these above agreed upon drawing changes.

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 3/22/04 has been entered.

Election/Restrictions

Restriction to one of the following inventions is required under 35 U.S.C. 121:

- III. Claims 69-75, drawn to a method of forming a molded surface, classified in class 439, subclass 66.
- IV. Claims 76-94, drawn to a method of forming a plurality of electrically conductive contact structures, classified in class 216, subclass 13.

The inventions are distinct, each from the other because of the following reasons:

Inventions III and IV are related as combination and subcombination. Inventions in this relationship are distinct if it can be shown that (1) the combination as claimed does not require the particulars of the subcombination as claimed for patentability, and (2) that the subcombination has utility by itself or in other combinations (MPEP § 806.05(c)). In the instant case, the combination as claimed does not require the particulars of the subcombination as

claimed because the combination does not require directing a curing stimulus through said stamping tool. The subcombination has separate utility such as molding to form a different product such as a flat panel display or a micromachine.

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

During a telephone conversation with Kenneth Burraston on March 26, 2004 a provisional election was made without traverse to prosecute the invention of Invention IV, claims 76-94.

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

The following is an examiner's statement of reasons for allowance: the prior art does not teach or suggest a method of forming a plurality of electrically conductive contact structures on an electronic component comprising a plurality of electrically conductive contact elements, each said contact structure comprising a base connected to one of said contact elements and a beam, said method comprising:

depositing a layer of moldable material on said electronic component;

providing a stamping tool comprising a plurality of protruding regions, a plurality of contoured regions, and a plurality of recessed regions, each said protruding region defining a base of one of said contact structures and corresponding to one of said contact elements on said electronic component, each said contoured region defining a beam of one of said contact structures, and each said recessed region defining a separation between adjacent ones of said contact structures;

aligning said protruding regions of said stamping tool with said contact elements of said electronic component;

pressing said stamping tool into said moldable material, said plurality of protruding regions forming molds in said moldable material of bases of said contact structures, and said plurality of contoured regions forming beam molds in said moldable material of beams of said contact structures; and

depositing contact structure material into said beam molds and said base molds, as in the context of claim 76.

The closest prior art, Chou, teaches to press a stamping tool into moldable material, but there is no motivation to provide a stamping tool comprising a plurality of protruding regions, a plurality of contoured regions, and a plurality of recessed regions, each said protruding region defining a base of one of said contact structures and corresponding to one of said contact elements on said electronic component, each said contoured region defining a beam of one of said contact structures, and each said recessed region defining a separation between adjacent ones of said contact structures, as in the context of claim 76.

Art Unit: 1765

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anita K Alanko whose telephone number is 571-272-1458. The examiner can normally be reached on Mon, Tues & Fri: 8:30 am-5 pm; Wed&Thurs: 10 am-2 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nadine Norton can be reached on 571-272-1465. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Anita K. Alanko
Anita K Alanko
Primary Examiner
Art Unit 1765